

LISTING OF CLAIMS:

Claims 1 to 7. (Canceled).

8. (Previously Presented) A fuel injector comprising;

- a valve needle;
- an armature forming an axially movable valve part together with the valve needle;
- a restoring spring acting upon the armature;
- a magnetic coil cooperating with the armature;
- a valve-seat body;
- a valve-closure member, which forms a sealing seat with the valve-seat body, being provided on the valve needle; and
- a valve sleeve surrounding the armature and the valve needle along the entire length of the armature and the entire length of the valve needle, a wall thickness of the valve sleeve varying across its axial extension;

wherein the wall thickness of the valve sleeve decreases in a discharge direction of the fuel in order to limit noise emissions;

wherein an outer diameter and a radial cross section of the valve sleeve decrease between an inflow-side region and a discharge-side region on a collar which also separates the inflow-side region having greater material strength from the discharge-side region having lower material strength;

wherein the radial cross section and the wall thickness of the inflow-side region are constant from the collar to a location axially beyond the valve needle in a direction opposite the discharge direction of the fuel;

wherein the decreased radial cross section and the decreased wall thickness of the discharge-side region are constant from the collar to a discharge-side end of the valve sleeve, the discharge-side end of the valve sleeve disposed axially beyond the valve-closure member; and

wherein the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the discharge direction of the fuel and the direction opposite the discharge direction of the fuel.

Claim 9. (Canceled).

10. (Previously Presented) The fuel injector according to claim 8, wherein the wall thickness of the valve sleeve is about 0.5 mm in an inflow-side region.

Claims 11 to 13. (Canceled).

14. (Previously Presented) The fuel injector according to claim 10, wherein the wall thickness of the valve sleeve is about 0.3 mm in a discharge-side region.

15. (Previously Presented) A fuel injector comprising;
a valve needle;
an armature, the armature and the valve needle together forming an axially movable valve part;
a restoring spring acting upon the armature;
a magnetic coil cooperating with the armature;
a valve-seat body;
a valve-closure member disposed on the valve needle, the valve-closure member forming a sealing seat with the valve-seat body; and
a valve sleeve surrounding the armature and the valve needle along the entire length of the armature and the entire length of the valve needle,
wherein
an outer diameter, a wall thickness and a radial cross section of the valve sleeve decrease between an inflow-side region and a discharge-side region on a collar, the collar separating the inflow-side region from the discharge-side region,
an intake pipe is inserted into the valve sleeve in the inflow-side region, the intake pipe extending axially beyond the valve sleeve in an intake-side direction to span an axial distance between the valve sleeve and a seal disposed in a region of central fuel supply,
the radial cross section and the wall thickness of the inflow-side region are constant from the collar to a location axially beyond the valve needle in the intake-side direction,
the decreased radial cross section and the decreased wall thickness of the discharge-side region are constant from the collar to a discharge-side end

of the valve sleeve, the discharge-side end of the valve sleeve disposed axially beyond the valve-closure member, and

the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the intake-side direction and a direction opposite the intake-side direction.

16. (Previously Presented) The fuel injector of claim 15, further comprising: a filter element pressed into the valve sleeve.

17. (Previously Presented) The fuel injector of claim 16, further comprising an electrical plug contact, the filter element being disposed axially between the electrical plug contact and the discharge-side region of the valve sleeve.

18. (Previously Presented) The fuel injector of claim 16, wherein the intake pipe radially contacts the seal.

19. (Previously Presented) The fuel injector of claim 8, wherein the collar spans an axial distance that is less than an axial distance spanned by the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region.

20. (Previously Presented) The fuel injector of claim 8, wherein the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region extend axially along a majority of an overall axial length of the valve sleeve.

21. (Previously Presented) The fuel injector of claim 15, wherein the collar spans an axial distance that is less than an axial distance spanned by the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region.

22. (Previously Presented) The fuel injector of claim 15, wherein the constant decreased radial cross section and the constant decreased wall thickness of the

discharge-side region extend axially along a majority of an overall axial length of the valve sleeve.